



Australian Bureau of Statistics

Australian CensusAtSchool

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Resources



CaSQ 17A - Scatter plots. Year level vs. Concentration Time

You can download this activity as a rich text file (RTF) using the link at the bottom of the page.

How to: Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool Random Sampler to download a sample.

Reference year: *(select year)* **Sample size:** *At least 30 students*

Select questions: *Year level, Concentration Game*

Location: *Select Location* **Year level:** *All*

To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% of the respondents for the parameters entered.



This task is designed to be completed by hand drawing a scatterplot. It can also be completed using Excel or CAS calculator.

Task:

1. Using your CensusAtSchool random sample, enter both sets of thirty numbers as:

- a table in your workbook, or
- two columns in Excel, or

- two separate lists in your CAS calculator.

2. Create a scatter plot with your data.

- Think about which set of data is the independent and dependent variable,
- Plan your axes to include the highest and lowest values in the data and
- Include a title that includes the variable names.

3. Look at your graph. Can you see any trend or pattern to the data? Complete this sentence:

As school year level _____, concentration time _____.

Extension:

4. On your scatterplot draw a line of best fit by eye. Remember to consider the slope and the position of this line.

5. Use the line to complete the following sentence: Each time the school year level increases by 1 year, concentration time _____ by _____ seconds.

6. Explain what this means in a sentence using your own words

Download the full activity:

RTF

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This page last updated 12 November 2013

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